



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

A.P. Das
Installation Environmental Program Manager
NAVFAC/PWD/Washington
Bldg 166, Suite 100N
1013 O Street SE
Washington Navy Yard, DC 20374

JUL 11 2008

Dear Mr. Das:

This letter is in response to the NAVFAC Washington June 2008 compliance monitoring reports, submitted to the U.S. Environmental Protection Agency (EPA) Region III by email on July 9, 2008. The reports identify multiple positive coliform sample results taken from the Washington Navy Yard (WNY, PWS ID DC0000003) and Naval Support Facility Anacostia (NSF-ANA, PWS ID DC0000004) on June 17, 2008 which NAVFAC believes do not reflect the quality of water in the distribution system. Specifically, the samples in question were taken from:

- WNY Bldg 122, Kitchen Sink
- WNY Bldg 212, 3rd floor Kitchen Sink South
- WNY Bldg 201, 1st floor Kitchen Sink Rm 1W916
- WNY Bldg 197, 1st floor Kitchen Sink 1E3520
- WNY Bldg 218, 1st floor Men's room
- NSF-ANA Bldg 418, Funari Hall, Food Preparation Area Kitchen Sink

Pursuant to 40 CFR §141.21(c)(1)(iii), EPA may invalidate a positive coliform sample if EPA has substantial grounds to believe that a total coliform-positive (TC+) result is due to a circumstance or condition which does not reflect water quality in the distribution system. EPA has reviewed data and supporting information submitted by NAVFAC Washington and is invalidating the six (6) TC+ results identified above. Please see the enclosure to this letter for a full discussion of our decision.


A total coliform-positive sample which is invalidated does not count towards meeting the minimum monitoring requirements under 40 CFR §141.21. EPA notes that a sufficient number of coliform samples has been collected at WNY and NSF-ANA for the month of June.

Pursuant to 40 CFR §141.21(c)(1)(iii), EPA must make this decision on invalidation available to the public. EPA will post this letter and enclosure to the EPA Region III DC Drinking Water website, located at: <http://www.epa.gov/reg3wapd/drinking/dc.htm>. EPA encourages NAVFAC Washington to make this decision available to the population of WNY and NSF-ANA by sharing this web link.



If you have any questions, please contact Dr. Jennie Saxe of my staff (saxe.jennie@epa.gov; 215-814-5806), or Lisa Donahue of the Ground Water and Enforcement Branch (donahue.lisa@epa.gov; 215-814-2062).

Sincerely,



Richard A. Rogers, Chief
Drinking Water Branch

Enclosure

cc: Rita Smith, NAVFAC Washington
Collin Burrell, District Department of the Environment
V. Sreenivas, DC Department of Health



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

SUBJECT: Invalidation of total coliform-positive samples collected at Washington Navy Yard (DC0000003) and Naval Support Facility Anacostia (DC0000004)

FROM: Jennie Saxe, Lead Environmental Scientist (3WP21)

J.S. 7/11/08

TO: File

THRU: Richard A. Rogers, Chief
Drinking Water Branch (3WP21)

[Signature]

7/11/08

Background

On June 17, 2008, 5 samples were collected at Washington Navy Yard (WNY) and 1 sample was collected at Naval Support Facility Anacostia (NSF-ANA). On June 18, 2008, NAVFAC Washington was notified by their contract laboratory that all of these samples tested positive for coliform bacteria (TC+), as did 1 sample collected from Bellevue Housing and 1 sample collected from the Arlington Service Center (ASC). All samples were negative for *E. coli* (EC-). WNY and NSF-ANA are public water systems (PWSs) regulated by EPA Region III; Bellevue and ASC are not regulated public water systems.

The detection of coliform bacteria does not constitute an immediate health risk; rather, it is an indicator that a system should examine its distribution system and operation and maintenance procedures to ensure that a health risk does not arise.

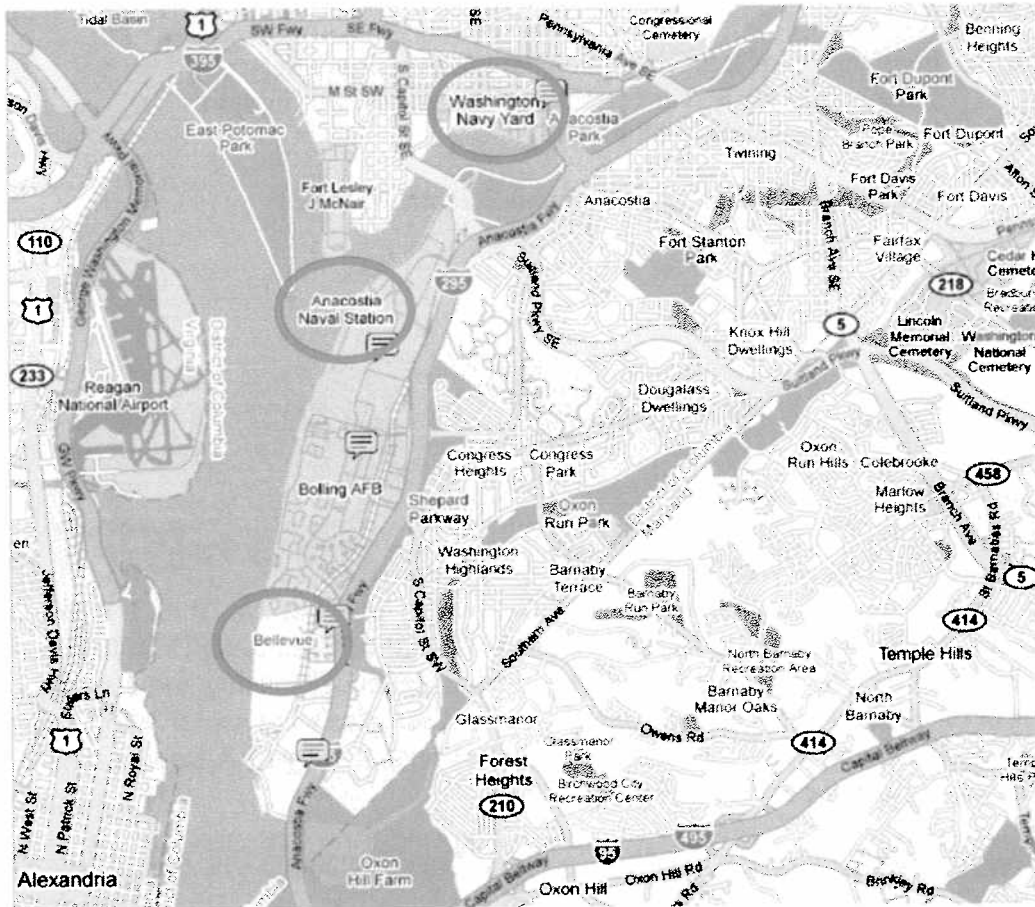
Results summary

This table summarizes the coliform results, disinfectant residual, and pH data collected from these installations on June 17, 2008:

Location	Number of samples	Bacteriological results	Disinfectant residual	pH
WNY (DC0000003)	5	all TC+ all EC-	Range of 5 samples: 2.5-2.9 mg/L	Range of 5 samples: 7.5-7.8
NSF-ANA (DC0000004)	1	TC+ EC-	2.5 mg/L	7.4
Bellevue Housing (not regulated)	1	TC+ EC-	2.7 mg/L	7.69
Arlington Service Center (not regulated)	1	TC+ EC-	2.6 mg/L	7.5

Locations

This map shows the locations of the installations which are located in the District of Columbia (Arlington Service Center is not shown):



The June 17, 2008 samples from WNY and NSF-ANA were taken from the following locations:

- WNY Bldg 122, Kitchen Sink
- WNY Bldg 212, 3rd floor Kitchen Sink South
- WNY Bldg 201, 1st floor Kitchen Sink Rm 1W916
- WNY Bldg 197, 1st floor Kitchen Sink 1E3520
- WNY Bldg 218, 1st floor Men's room
- NSF-ANA Bldg 418, Funari Hall, Food Preparation Area Kitchen Sink

Initial actions

Upon learning of the TC+ results from the laboratory, NAVFAC Washington immediately notified EPA Region III (EPA), Drinking Water Branch (DWB), by telephone and requested direction in how to proceed. DWB staff directed NAVFAC Washington to proceed as if this were an exceedance of the coliform maximum contaminant level (MCL). Pursuant to this direction, NAVFAC Washington notified EPA of the multiple positive coliform results in writing on June 19, 2008, as required by 40 CFR §141.21(g)(1). Also, to follow-up on the TC+ samples, NAVFAC Washington directed the contract laboratory to collect repeat samples at the original TC+ locations, and at locations up- and downstream of each location, as required by 40 CFR §141.21(b). These repeat samples were collected on June 19, 2008. Results of the

repeat samples were available on June 20, 2008. All repeat samples were negative for coliform bacteria (TC-).

NAVFAC Washington informed EPA that the contract laboratory had begun an investigation. Pending the results of the lab's investigation, NAVFAC considered a "boil water" notice, considered supplying bottled water to sensitive populations, and prepared to perform public notification of a coliform MCL violation.

Investigation

Several parties were involved in investigating this issue:

NAVFAC Washington

NAVFAC Washington confirmed that there were no unusual events occurring in their distribution systems during the time the samples were collected (e.g., extensive system flushing, which could have disturbed pipe biofilms and increased the likelihood of detecting bacteria).

Martel Laboratories

Martel Laboratories, the contract lab for NAVFAC Washington, reviewed sample collection procedures and analytical protocols and performed interviews of the sample collector and analyst associated with these samples.

The lab was unable to identify a specific source of sample contamination or deviation from analytical protocol. The laboratory investigation report, provided on June 24, 2008, found the following:

- Another client's samples with the same lot number of media analyzed earlier in the day were TC-.
- A back-up analyst performed the analysis of the routine samples for the Navy installations which were TC+ and also analyzed the repeats, which all came back TC-.
- The field technician indicated that the sample containers used had been in his van for approximately a month, but were contained in a Ziploc bag. These sample bottles were intended for use in April, but were not used until mid-June due to Navy/Martel contractual issues.

EPA Region III

In order to identify any problem in the larger distribution system, DWB staff contacted Bolling Air Force Base (BAFB), a regulated PWS geographically situated between NSF-ANA and Bellevue Housing, to determine if they had any TC+ samples during June. BAFB reported no TC+ samples. The District of Columbia Water and Sewer Authority (DCWASA) also has a routine coliform sampling location at the Blue Plains facility, located south of Bellevue Housing. DCWASA reported no TC+ samples from the Blue Plains sample site for the month of June.

DWB staff also contacted Martel Laboratories to gain information to supplement the lab's written investigation summary. DWB staff inquired about the analyst who had performed analysis of the other client's samples using the same lot number of media; the primary analyst had analyzed these samples. Martel informed DWB staff that the back-up analyst had passed all demonstrations of capability. Also, Martel noted that they use IDEXX pre-sterilized bottles which are subject to QC per manufacturer instructions.

DWB staff also consulted with a microbiologist in the EPA Region III laboratory at Fort Meade regarding the lab's findings. The microbiologist agreed that analysis of samples by a person

other than the primary analyst and use of sample bottles that had been left in a van for a month could contribute to TC+ samples.

EPA Region III notes that each of the samples collected on June 17, 2008, had adequate disinfectant residual. Also, the pH of these samples is consistent with other samples from these locations and with the larger distribution system in the District.

Conclusion

EPA Region III concludes that there is sufficient evidence that the 5 TC+ samples from WNY and the 1 TC+ sample from NSF-ANA collected on June 17, 2008 were not reflective of water quality in the distribution system and invalidates these TC+ samples pursuant to 40 CFR §141.21(c)(1)(iii).

Further action

No further action is required of NAVFAC Washington on this matter.

- A sufficient number of coliform samples has been collected at WNY and NSF-ANA for the month of June.
- The TC+ samples are invalidated; thus, public notification pursuant to 40 CFR §141 Subpart Q is not required.

EPA is required under 40 CFR §141.21(c)(1)(iii) to make this decision on invalidation available to the public. EPA will post this memorandum to the EPA Region III DC Drinking Water website, located at: <http://www.epa.gov/reg3wapd/drinking/dc.htm>. EPA will also encourage NAVFAC Washington to make this decision available to the population of WNY and NSF-ANA by sharing the web link.